

REMARKS

Status of Application

Claims 1-10 are the claims that have been examined in the pending application. Claim 4 and 7 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1 and 2 stand rejected under 35 U.S.C. § 102(a) as being anticipated by Ho et al. (U.S. Patent No. 6,790,374). Claims 1-10 stand rejected under 35 U.S.C. § 103 (a) as being unpatentable over Ho.

By this Amendment, Applicant is amending claims 1-10. These amendments are merely clarifying amendments, and are not believed to affect the scope of claims in any way, and no estoppel is intended.

Preliminary Matters

Applicant thanks the Examiner for acknowledging Applicant's claim to foreign priority under 35 U.S.C. § 119 and receipt of the certified priority document.

Applicant further thanks the Examiner for acknowledging acceptance of the drawings filed December 3, 2005, and for considering and initialing the Information Disclosure Statement filed May 3, 2005.

Claim Rejections under 35 U.S.C. § 112

Claim 4 and 7 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The informalities noted by the Examiner have been corrected. Thus, withdrawal of the rejection is respectfully requested.

Claim Rejections under 35 U.S.C. § 102(a)

Claims 1 and 2 are rejected under 35 U.S.C. § 102(a) as being anticipated by Ho et al. (U.S. Patent No. 6,790,374).

Claim 1 recites, in part, “establishing the power of a plasma excitation electromagnetic wave progressively, wherein a gas that is inert for the substrate is injected into the reaction chamber and the power of the plasma excitation electromagnetic wave is raised progressively until the appropriate nominal power is reached, thereby forming an inert gas plasma which progressively heats up the leakproof wall of dielectric material, and injecting an active gas into the reaction chamber in order to replace the inert gas and perform etching by the plasma of the active gas.” The Examiner argues that Ho teaches this aspect of claim 1, citing col. 2, lines 44-45 as teaching the ramping up the power level in a plasma reactor. See Office Action, page 2.

Applicant respectfully submits that the ramping up the power level in a plasma reactor found in col. 2, lines 44-45 of Ho fails to disclose the above-noted aspects of claim 1. Specifically, claim 1 requires that the power of the plasma excitation electromagnetic wave is raised progressively, thus forming an inert gas plasma from injected gas that is inert for the substrate. Col. 2, lines 44-45 does not disclose the formation of an inert gas plasma. Nor does Ho teach that the inert gas is injected into the reaction chamber to form the inert gas plasma, and is subsequently replaced with an active gas, which forms a plasma, to perform the etching. Ho discloses seasoning a cleaned plasma reactor chamber to form a seasoning polymer thereon, but

does not disclose forming an inert gas plasma. Therefore, Ho fails to disclose forming an inert gas plasma and injecting an active gas into the reaction chamber to replace the previously injected inert gas.

Further, in claim 1, the substrate is introduced to the reaction chamber before the powering of the plasma excitation electromagnetic wave, and remains in the chamber until the etching process is complete. Ho, as can be seen in FIGS. 1-3, discloses that the substrate 16 is not introduced into the reaction chamber until after the plasma reactor has been seasoned. Therefore, Ho cannot anticipate the method of claim 1, as it fails to disclose all of the elements of claim 1. Therefore, claim 1 is patentable over the applied art.

Claim 2 is patentable at least by virtue of its dependency from claim 1.

Claim Rejections under 35 U.S.C. § 103(a)

Claims 1-10 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over Ho. et al. teaches ramping up the power level in a plasma reactor (column 2, lines 44-45).

As noted above with regard to the §102(b) rejection, Ho fails to disclose all of the elements of claim 1. The Examiner asserts that it would have been obvious to modify Ho to include a controller. Even assuming, arguendo, that the Examiner's assertion is correct, such still does not cure the above-noted deficiency in Ho. Therefore, Ho cannot render claim 1 obvious, as not all of the elements of the claim are taught or suggested. Claim 1 is patentable over the applied art.

Claims 2-10 are patentable at least by virtue of their dependency from claim 1.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

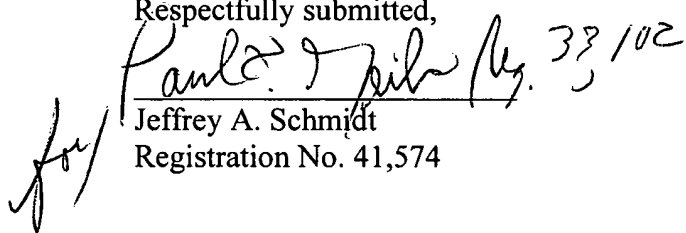
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